

and “3-3,” respectively, as used in the specification. Independent claims 1, 39, and 78 have been amended to better define the invention. Claim 1 has been amended to point out that the container comprises first, second, and third layers thermoformed into a rigid, dimensionally stable article. Claims 37 and 78 have been amended to point out that the first, second, and third layers are heat-set into a rigid, dimensionally stable article, and that the food container has a bottom portion and a flange portion. Amended claim 78 specifies that the heat-set container is a microwavable food tray. Dependent claim 11 has been amended to point out that the container has a bottom portion and a flange portion, and that the level of thermal crystallinity in the bottom portion is greater than the level of thermal crystallinity in the flange portion, and that at least a portion of the container has a degree of thermal crystallinity of at least about 15%. Dependent claims 22, 38, and 79 have been amended to change terminology in accordance with the amendments made to the respective independent claims. Support for the claim amendments is found in the specification, *inter alia*, at page 2, lines 1-8; page 3, lines 14-15; page 7, lines 5-15; at the paragraph bridging pages 12 and 13, page 14, lines 17-22, and further in application Serial No. 09/535,953 (now U.S. Patent 6,394,783) at page 8, line 18 to page 9, line 10, which is incorporated by reference in the present specification. No new matter is added as a result of these amendments.

The Rejections of Claims 1-12, 39-46, and 78 Under 35 U.S.C. §§ 102(b) and 102(e)

Claims 1, 2, 4-10, 39, 40, 42, 43, and 78 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Kojima *et al.* (U.S. Patent No. 4,737,548; “Kojima ‘548”). Claims 1-10, 39-43, and 78 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Kojima *et al.* (U.S. Patent No. 4,656,094; “Kojima ‘094”). Claims 1, 2, 4-9, 11, 12, 39, 40, 42-44, and 78 stand rejected

under 35 U.S.C. § 102(e) as being anticipated by Schneider *et al.* (U.S. Patent No. 6,333,094; “Schneider”). Claims 1, 2, 4, 5, 39, 40, 42, 43, 45, and 46 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Wakabayashi *et al.* (U.S. Patent No. 6,355,336; “Wakabayashi”). Applicants respectfully traverse each of these rejections insofar as they may be applied to claims 1-12, 39-46, and 78 as amended.

Kojima ‘548 and ‘094 disclose multi-layer films that include a polyester resin layer and a layer of an epoxy group-containing olefin polymer, which may contain an acrylate monomer component. Additional layers selected from a long list of materials also may be present (*see* ‘548 col. 5, line 10 to col. 6, line 36). As described in Kojima ‘094 at column 7, lines 32-48, the multi-layer laminate can be used as food wrap films or as packaging material laminated to articles such as food packaging bottles or the like. Kojima ‘094 and ‘548 clearly do not describe or suggest a thermoformed container comprising first, second, and third layers thermoformed into a rigid, dimensionally stable article, as set forth in amended independent claim 1, let alone a thermoformed container comprising first, second, and third layers heat-set into a rigid, dimensionally stable article, as set forth in amended independent claims 39 and 78. In contrast, the films of Kojima ‘094 and ‘548 simply are wrapped or laminated onto an already-formed article. Claims 39 and 78 further distinguish Kojima ‘094 and ‘548 by pointing out that the thermoformed container includes a bottom portion and a flange portion. Reconsideration and withdrawal of the rejections over Kojima ‘094 and ‘548 are respectfully requested.

Schneider describes a thermoformable composite synthetic veneer film useful for producing furniture parts. According to Schneider, the composite film can be laminated to a previously-produced part of wood or wood materials (*see*, e.g., column 2, lines 31-36). Schneider clearly fails to describe a container comprising first, second, and third layers

thermoformed or heat-set into a rigid, dimensionally stable article, as in amended claims 1, 39, and 78. Schneider uses the term “thermoforming” to refer to heating, shaping, and adhering the composite film to a previously-produced part. In contrast, the thermoformed container of the claimed invention has first, second, and third layers which themselves are thermoformed (and may be heat-set) into a rigid, dimensionally stable article. Reconsideration and withdrawal of the rejection over Schneider are respectfully requested.

Wakabayashi describes a multi-layer packaging film having an intermediate layer comprising polytetramethylene terephthalate resin. As described at column 8, lines 25-34, the film is useful for packaging foods, machine parts, electronic parts, and the like. Wakabayashi fails to disclose or even remotely suggest a thermoformed container having first, second, and third layers which are thermoformed into a rigid, dimensionally stable article, as described and claimed in the subject application. Reconsideration and withdrawal of the rejection over Wakabayashi are respectfully requested.

Independent claims 39 and 78 recite that the container has a bottom portion and a flange portion. Amended claim 11 additionally points out that the level of thermal crystallinity in the bottom portion is greater than the level of thermal crystallinity in the flange portion. None of the prior art documents, taken alone or in any combination, describes or even remotely suggests these features. It is respectfully submitted that claims 11, 39, and 78 further distinguish the cited documents. The remaining dependent claims 2-10, 12, 40-46, and 79 are patentable for at least the same reasons argued above with respect to independent claims 1, 39, and 78. Accordingly, reconsideration and withdrawal of each of the § 102 rejections are respectfully requested.

The Rejections of Claims 22-29, 47, and 79 Under 35 U.S.C. § 103(a)

Claims 22-29 and 79 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kojima '094 in view of Yamada *et al.* (U.S. Patent No. 5,695,839; "Yamada"), Rosato *et al.* (Concise Encyclopedia of Plastics; "Rosato"), and Wakabayashi.¹ Claim 47 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kojima '094 in view of Brady *et al.* (U.S. Patent No. 5,916,615; "Brady"). Applicants respectfully traverse these rejections insofar as they may be applied to claims 22-29, 47, and 79 as amended.

To establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (emphasis added). Claims 22-29 depend from claim 1 and recite compositions and average thicknesses of the layers. Claim 47 depends from claim 39 and recites that the container contains foodstuff and is sealed with highly elastic polyethylene-based lidding stock using modified atmosphere packaging. Claim 79 depends from claim 78 and recites average thicknesses of the layers.

As discussed above, neither Kojima '094 nor Wakabayashi describes or suggests the thermoformed container of amended independent claims 1, 39, and 78, at least because neither document describes or suggests a thermoformed container having first, second, and third layers thermoformed into a rigid, dimensionally stable article. Yamada, Rosato, and Brady fail to cure the deficiencies of Kojima '094 and Wakabayashi.

Yamada is cited as describing a food container having biaxially oriented polyester/ethylene-glycidyl acrylate/HDPE structure of particular film thicknesses. Yamada fails to

¹ Although the Office Action cites Schneider and not Wakabayashi as a secondary reference, the cited patent number and later explanations actually correspond to Wakabayashi.

describe a thermoformed container in which first, second, and third layers are thermoformed into a rigid, dimensionally stable article as is now claimed. In contrast, the body of the container of Yamada is formed by heat sealing a laminate sheet 35 prior to adhering the remaining layers of the container (column 7, lines 28-35).

Rosato is cited as describing containers having particular area stretch ratios for thermoformed containers. Rosato fails to describe or suggest a thermoformed container having the particular structure as is now claimed. None of the documents even remotely suggests thermoforming the particular first, second, and third layers into a rigid, dimensionally stable container, as set forth in independent claims 1, 39, and 78. Accordingly, Rosato, taken alone or in combination with any other reference, fails to describe or suggest the invention of claims 22-29 and 79.

Brady is cited as describing a package comprising a gas-permeable substrate to allow oxygen flow and prevent discoloration of meat. Brady, in fact, describes adhering a gas-permeable substrate 36 to a food container (support member 12). Thus, Brady fails to describe or suggest a thermoformed container having first, second, and third layers thermoformed into a rigid, dimensionally stable article, as set forth in independent claims 1, 39, and 78. Brady fails to remedy the deficiencies of the primary references as discussed above.

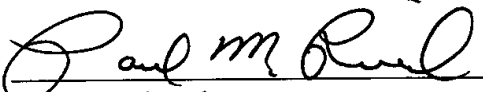
Reconsideration and withdrawal of each of the § 103 rejections of claims 22-29, 47, and 79 are respectfully requested.

Conclusion

In view of the foregoing, Applicants submit that the subject application is in condition for allowance. Accordingly, favorable reconsideration of the subject application is respectfully requested.

Respectfully submitted,

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Date: February 12, 2003

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VERSION WITH MARKINGS TO SHOW CHANGES

1. (amended) A multi-layered ~~thermoplastic~~-thermoformed container comprising first, second, and third layers thermoformed into a rigid, dimensionally stable article, wherein the first, second, and third layers comprise:

a first polymeric layer comprising an alkylene terephthalate or naphthalate polymer;

a second intermediate layer comprising a grafted or backbone co-polymer or ter-polymer of ethylene, a glycidyl acrylate, and optionally an acrylate selected from the group consisting of methacrylate, ethylacrylate, propylacrylate, butylacrylate, ethylhexylacrylate, and mixtures thereof; and

a third polymeric layer comprising high density polyethylene, low density polyethylene, ^{7.123}linear low density polyethylene, or a blend thereof.

11. (amended) The container of claim 1 wherein ~~said alkylene terephthalate or naphthalate polymer~~the container has a bottom portion and a flange portion; wherein the level of thermal crystallinity in the bottom portion is greater than the level of thermal crystallinity in the flange portion; and wherein at least a portion of the container has a degree of thermal crystallinity of at least about 15%.

22. (twice amended) The multi-layered ~~thermoplastic~~-thermoformed container of claim 1 wherein:

said first polymeric layer has an average thickness of from about 5 to about 35 mils;

wherein said second intermediate layer has an average thickness of from about 0.1 to about

2 mils;

wherein said third polymeric layer has an average thickness of from about 1 to about 5 mils; and

wherein said container has an area stretch ratio of from about 1.5:1 to about 3:1.

38. (twice amended) The multi-layered ~~thermoplastic~~-thermoformed container of claim 79 wherein:

said first polymeric layer has an average thickness of from about 12 to about 18 mils;

wherein said second intermediate layer has an average thickness of from about 0.1 to about 1.5 mils; and

wherein said third polymeric layer has an average thickness of from about 2 to about 4 mils.

39. (amended) A multi-layered ~~thermoplastic~~-thermoformed food container comprising first, second, and third layers heat-set into a rigid, dimensionally stable article having a bottom portion and a flange portion, wherein the first, second, and third layers comprise:

a first polymeric layer comprising an alkylene terephthalate or naphthalate polymer;

a second intermediate layer comprising a grafted or backbone co-polymer or ter-polymer of ethylene, a glycidyl acrylate, and optionally an acrylate selected from the group consisting of methacrylate, ethylacrylate, propylacrylate, butylacrylate, ethylhexylacrylate, and mixtures thereof; and

a third polymeric layer comprising high density polyethylene, low density polyethylene, linear low density polyethylene, or a blend thereof.

78. (amended) A multi-layered ~~thermoplastic container~~ thermoformed microwavable food tray comprising first, second, and third layers heat-set into a rigid, dimensionally stable article having a bottom portion and a flange portion, wherein the first, second, and third layers comprise:

a first polymeric layer comprising a polyethylene terephthalate or naphthalate polymer;

a second intermediate layer selected from the group consisting of ethylene/glycidyl methacrylate co-polymer, ethylene/maleic anhydride co-polymer, ethylene/glycidyl methacrylate/methacrylate ter-polymer, ethylene glycidyl methacrylate/ethylacrylate ter-polymer, ethylene/glycidyl methacrylate/butyl-acrylate ter-polymer, ethylene/glycidyl methacrylate/ethylhexylacrylate ter-polymer, ethylene/maleic anhydride/methacrylate ter-polymer, ethylene/maleic anhydride/ethylacrylate ter-polymer, ethylene/maleic anhydride/butylacrylate ter-polymer, ethylene/maleic anhydride/ethylhexylacrylate ter-polymer, and mixtures thereof; and

a third polymeric layer comprising high density polyethylene, low density polyethylene, linear low density polyethylene, or a blend thereof.

79. (amended) The multi-layered ~~thermoplastic container~~ thermoformed microwavable food tray of claim 78 wherein:

said first polymeric layer has an average thickness of from about 5 to about 35 mils;

wherein said second intermediate layer has an average thickness of from about 0.1 to about 2 mils;

wherein said third polymeric layer has an average thickness of from about 1 to about 5 mils; and

wherein said container has an area stretch ratio of from about 1.5:1 to about 3:1.